

Remarks

Claims 1-21 were originally filed. The independent claims are hereby amended, without prejudice, so that, instead of simply specifying a molecular weight, they better indicate the location and size range of the truncations that result in activated fragments as described in more detail in the specification. A copy of the full set of the claims as now presented is attached, together with a marked-up version showing the non-prejudicial amendments as made herein.

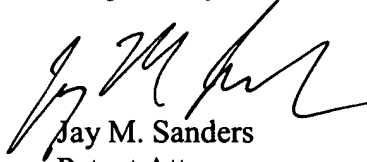
The sequences of two exemplified fragments are provided as SEQ ID NOs:6 and 8. The fragment of SEQ ID NO:6 (and the gene that encodes it) is called R443 because the C terminus corresponds to approximately residue 443 of the full-length, 475 amino acid protein. Claim 1 as now presented thus specifies that the fragment is pesticidal and that it is truncated by at least 32 amino acids and the C terminus. Similarly, the C-terminus of the R390 fragment of SEQ ID NO:8 corresponds to approximately amino acid residue 390 of the full-length *Cry6A* protein. Thus, claim 3 as now presented specifies that the fragment is pesticidal and that it is truncated by at least 85 amino acids at the C terminus as compared to the full-length *Cry6A* protein. The R443 and R390 fragments are also truncated at the N terminus. The independent claims specify an N terminal truncation. Support for the N terminal truncation more specifically stated in claims 7, 9, 16, and 18 can be found in Example 3 (page 22, paragraph 96, for example).

Claims 3, 5, 8, 12 and 14 are hereby amended without prejudice, and claims 4, 6, 13 and 15 are canceled without prejudice, to further clarify in light of the amendments to the independent claims, that these current claims would not read on the full-length, wild-type (475 amino acid) *Cry6A* protein.

The applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

The Assistant Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 and 1.17 as required by this paper to Deposit Account 19-0065.

Respectfully submitted,



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Attachments: Version with Markings to Show Changes Made
Full Set of Claims Presented by This Preliminary Amendment

Version with Markings to Show Changes MadeIn the Claims:

Please cancel claims 4, 6, 13, and 15.

Please amend claims 1, 3, 5, 8, 10, 12, 14, and 17 to read as follows:

Claim 1 (amended):

An isolated, pesticidal protein wherein said protein [comprises] consists of a pesticidal fragment of the full-length *Cry6A* toxin of SEQ ID NO:2, wherein said protein [has a molecular weight between approximately 34 kDa and approximately 50 kDa] is truncated at the amino terminus as compared to the full-length 475-amino-acid toxin and is truncated by at least 32 amino acids at the carboxyl terminus as compared to the full-length toxin.

Claim 3 (amended):

The protein of claim 1 wherein said protein [consists of a pesticidal fragment of the full-length *Cry6A* toxin of SEQ ID NO:2] is truncated by at least 85 amino acids at the carboxyl terminus as compared to the full-length toxin.

Claim 5 (amended):

The protein of claim 1 wherein said protein consists of the amino acid sequence of SEQ ID NO:6 [or a pesticidal fragment of SEQ ID NO:6].

Claim 8 (amended):

The protein of claim 1 wherein said protein [comprises] consists of the amino acid sequence of SEQ ID NO:8.

Claim 10 (amended):

A method of controlling a coleopteran pest wherein said method comprises contacting said pest with an isolated, pesticidal protein wherein said protein [comprises] consists of a

pesticidal fragment of the full-length *Cry6A* toxin of SEQ ID NO:2, wherein said protein [has a molecular weight between approximately 34 kDa and approximately 50 kDa] is truncated at the amino terminus as compared to the full-length 475-amino-acid toxin and is truncated by at least 32 amino acids at the carboxyl terminus as compared to the full-length toxin.

Claim 12 (amended):

The method of claim 10 wherein said protein [consists of a pesticidal fragment of the full-length *Cry6A* toxin of SEQ ID NO:2] is truncated by at least 85 amino acids at the carboxyl terminus as compared to the full-length toxin.

Claim 14 (amended):

The method of claim 10 wherein said protein consists of the amino acid sequence of SEQ ID NO:6 [or a pesticidal fragment of SEQ ID NO:6].

Claim 17 (amended):

The method of claim 10 wherein said protein [comprises] consists of the amino acid sequence of SEQ ID NO:8.

Full Set of Claims Presented by This Preliminary Amendment

1. An isolated, pesticidal protein wherein said protein consists of a pesticidal fragment of the full-length Cry6A toxin of SEQ ID NO:2, wherein said protein is truncated at the amino terminus as compared to the full-length 475-amino-acid toxin and is truncated by at least 32 amino acids at the carboxyl terminus as compared to the full-length toxin.
2. The protein of claim 1 wherein said protein has a molecular weight of approximately 40-48.7 kDa.
3. The protein of claim 1 wherein said protein is truncated by at least 85 amino acids at the carboxyl terminus as compared to the full-length toxin.
5. The protein of claim 1 wherein said protein consists of the amino acid sequence of SEQ ID NO:6.
7. The protein of claim 1 wherein said protein consists of an amino acid segment of SEQ ID NO:2 from approximately amino acid 11 to approximately amino acid 443 of SEQ ID NO:2.
8. The protein of claim 1 wherein said protein consists of the amino acid sequence of SEQ ID NO:8.
9. The protein of claim 1 wherein said protein consists of an amino acid segment of SEQ ID NO:2 from approximately amino acid 11 to approximately amino acid 390 of SEQ ID NO:2.
10. A method of controlling a coleopteran pest wherein said method comprises contacting said pest with an isolated, pesticidal protein wherein said protein consists of a pesticidal fragment of the full-length Cry6A toxin of SEQ ID NO:2, wherein said protein is truncated at the amino terminus as compared to the full-length 475-amino-acid toxin and

is truncated by at least 32 amino acids at the carboxyl terminus as compared to the full-length toxin.

11. The method of claim 10 wherein said protein has a molecular weight of approximately 40-48.7 kDa.
12. The method of claim 10 wherein said protein is truncated by at least 85 amino acids at the carboxyl terminus as compared to the full-length toxin.
14. The method of claim 10 wherein said protein consists of the amino acid sequence of SEQ ID NO:6.
16. The method of claim 10 wherein said protein consists of an amino acid segment of SEQ ID NO:2 from approximately amino acid 11 to approximately amino acid 443 of SEQ ID NO:2.
17. The method of claim 10 wherein said protein consists of the amino acid sequence of SEQ ID NO:8.
18. The method of claim 10 wherein said protein consists of an amino acid segment of SEQ ID NO:2 from approximately amino acid 11 to approximately amino acid 390 of SEQ ID NO:2.
19. The method of claim 10 wherein said protein is produced by and present in a plant.
20. An isolated polynucleotide that encodes a protein of claim 1.
21. A transgenic microbial or plant cell comprising a polynucleotide of claim 20.